

## CLAIMS

What is claimed is:

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1. A method at a server for facilitating a remote boot process at a client, wherein the client and the server reside on a network, the method comprising the steps of:

receiving, at the server, a dataset of load  
10 information associated with an execution load at a boot server;

in response to receiving the dataset of load information, ordering a list of multiple boot server addresses based on the received dataset of load  
15 information and based on previously received datasets of load information;

receiving, at the server, a first file transfer request initiated by a remote boot process at the client;

in response to receiving the first file transfer  
20 request, sending a file comprising the ordered list of multiple boot server addresses to the client.

2. The method of claim 1, further comprising, prior to the step of receiving the first file transfer request:

25 receiving, at the server, a boot service discover message from the client; and

in response to receiving the boot service discover message, sending a boot service acknowledgment message to the client.

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3. The method of claim 1, further comprising, prior to the step of receiving the first file transfer request:

receiving, at the server, a second file transfer request from the client; and

5 in response to receiving the second file transfer request, sending an initial network bootstrap program to the client, wherein the initial network bootstrap program, when executed at the client, generates the first file transfer request.

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4. A method at a server for facilitating a remote boot process at a client, wherein the client and the server reside on a network, the method comprising the steps of:

15 receiving, at the server, a boot file transfer request initiated by a remote boot process at the client; in response to receiving the boot file transfer request, sending a file to the client;

monitoring an execution load at the server;

20 generating a dataset containing load information associated with the execution load at the server; and sending the generated dataset to another server.

5. An apparatus for facilitating a remote boot process at a client on a network, the apparatus comprising:

first receiving means for receiving a dataset of load information associated with an execution load of a boot server;

ordering means for ordering, in response to receiving the dataset of load information, a list of multiple boot server addresses based on the received dataset of load information and based on previously received datasets of load information;

second receiving means for receiving a first file transfer request initiated by a remote boot process at the client;

first sending means for sending, in response to receiving the first file transfer request, a file comprising the ordered list of multiple boot server addresses to the client.

6. The apparatus of claim 5 further comprising:

third receiving means for receiving a boot service discover message from the client; and

second sending means for sending a boot service acknowledgment message to the client in response to receiving the boot service discover message.

7. The apparatus of claim 5 further comprising:

fourth receiving means for receiving a second file transfer request from the client; and

third sending means for sending an initial network  
5 bootstrap program to the client in response to receiving  
the second file transfer request, wherein the initial  
network bootstrap program, when executed at the client,  
generates the first file transfer request.

8. A data processing system for facilitating a remote boot process on a network, the data processing system comprising:

first receiving means for receiving, at a first  
5 server, a dataset of load information associated with an execution load of a second server;

ordering means for ordering at the first server, in response to receiving the dataset of load information, a list of multiple boot server addresses based on the  
10 received dataset of load information and based on previously received datasets of load information;

second receiving means for receiving at the first server a first file transfer request initiated by a remote boot process at a client;

15 first sending means for sending, in response to receiving the first file transfer request, a file comprising the ordered list of multiple boot server addresses to the client from the first server.

third receiving means for receiving at the second  
20 server a boot file transfer request from the client;

second sending means for sending a file to the client in response to receiving the boot file transfer request;

monitoring means for monitoring an execution load at  
25 the second server;

generating means for generating a dataset containing load information associated with the execution load at the second server; and

third sending means for sending the generated  
30 dataset to the first server.

9. A computer program product on a computer readable medium for use in a server for facilitating a remote boot process at a client, wherein the client and the server reside on a network, the computer program product

5 comprising:

instructions for receiving, at the server, a dataset of load information associated with an execution load at a boot server;

10 instructions for ordering, in response to receiving the dataset of load information, a list of multiple boot server addresses based on the received dataset of load information and based on previously received datasets of load information;

15 instructions for receiving, at the server, a first file transfer request initiated by a remote boot process at the client;

20 instructions for sending, in response to receiving the first file transfer request, a file comprising the ordered list of multiple boot server addresses to the client.

10. The computer program product of claim 9 further comprising:

25 instructions for receiving, at the server, a boot service discover message from the client; and

instructions for sending, in response to receiving the boot service discover message, a boot service acknowledgment message to the client.

11. The computer program product of claim 10 further comprising:

instructions for receiving, at the server, a second file transfer request from the client; and

5 instructions for sending, in response to receiving the second file transfer request, an initial network bootstrap program to the client, wherein the initial network bootstrap program, when executed at the client, generates the first file transfer request.

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